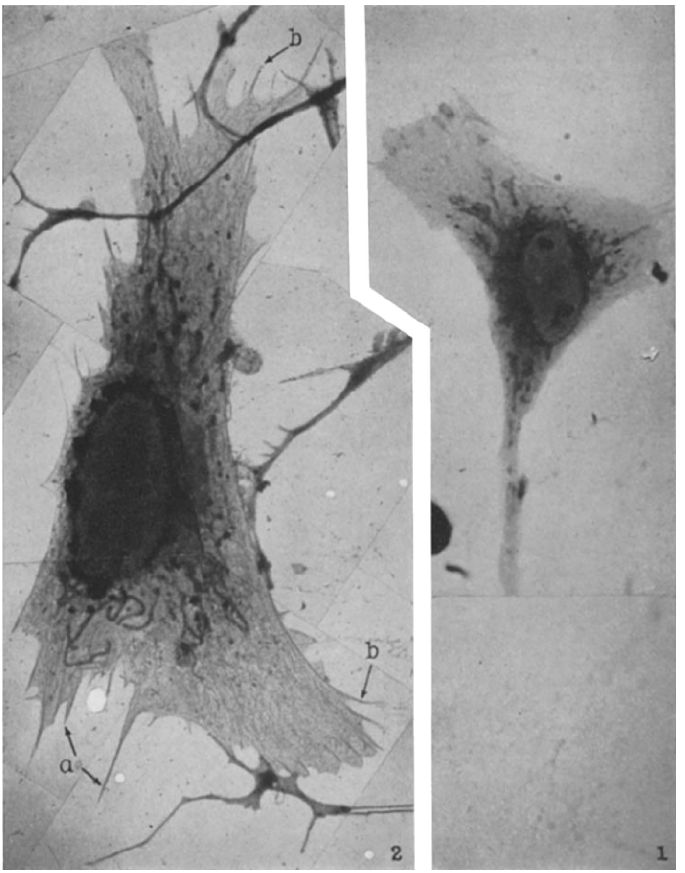

Figure 5.1. On the left is Porter, Claude, and Fullam's original 1945 electron micrograph of a fibroblast-like cell and nerve fibers cultured from chick embryo tissue. On the right is a photomicrograph of a similar cell using a light microscope. Reproduced from Porter, K. R., Claude, A., & Fullam, E. F. (1945), A study of tissue culture cells by electron microscopy, *Journal of Experimental Medicine, 81*, pp. 235–255, Figures 1 and 2 on plate 10, by copyright permission of The Rockefeller University Press.

As they noted, the mitochondria appeared as elongated rod-like structures that appeared to have areas of increased density as well as extremely small granules 10 to 20 m μ in diameter. They proposed that "these may be composed mainly of inorganic salts, or that they represent centers where reduced osmium has accumulated" (239). Due to the osmophilic character, they interpreted the dense bodies with angular outlines in the micrographs as Golgi bodies. In the *Annual Report* for 1944–5 they appealed to these observations to challenge the interpretation of the Golgi apparatus as an artifact of the way